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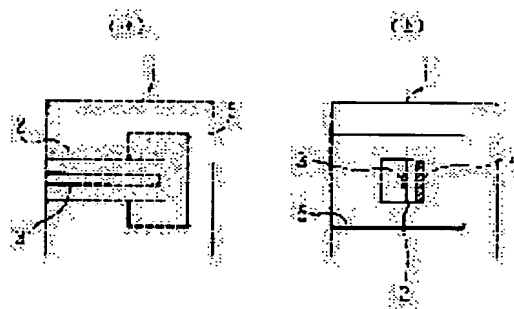
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(54) WAVEGUIDE/MICROSTRIP LINE CONVERTER

(57)Abstract:

PURPOSE: To prevent electric characteristics from being degraded by the defect of soldering by fitting a microstrip line, for which the back face of a dielectric substrate is not metalized, to a conductor chassis with an adhesive agent.

CONSTITUTION: A dielectric substrate 2 provided with a microstrip conductor 3 is fixed to a conductor chassis 1 by an adhesive agent 4. Therefore, the electric characteristics can not be affected by the increase of reflection caused by soldering leakage to a waveguide 5 or the increase of a loss caused by resonance at a gap between a ground conductor and the conductor chassis as a problem in the case of soldering a substrate with back face metalized. Since soldering is not used for adhesion, heating is not required, assembly is enabled even in the case of combination with a device weak for heat, and workability is improved. Further, since the dielectric substrate with the metalized back face is not used, a metalized ground conductor is prevented from being peeled and disabling the use even when the microstrip line is repeatedly fitted again.



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図4 (b) は図6のB-B'断面図、図4 (c) は図6のC-C'断面図である。この場合は、誘電体基板2と導体シヤーン1との間に誘電層が生じないため誘電層の厚みのばらつきによるインピーダンスの変化や層界面による誘電体損失の増加をなくすることができる。

(0018)

(発明の効果) このように、この発明による導波管/マイクロストリップ線路変換器は、誘電体基板の裏面をマイクロストリップ線路で形成し、安定した特性を得る事が可能となる。また、温度を上げずに取付けられるので、熱に弱いデバイスと組み合わせたままでもつけ直すことも可能となり、作業者の向上にも役立つ。

(図面の簡単な説明)

(図1) この発明による導波管/マイクロストリップ線路変換器の実施例1を示す図である。

(図2) この発明による導波管/マイクロストリップ線路変換器の実施例2を示す図である。

(図3) この発明による導波管/マイクロストリップ線路変換器の実施例3を示す図である。

(図4) この発明による導波管/マイクロストリップ線路変換器の実施例4を示す図である。

(図5) 従来の導波管/マイクロストリップ線路変換器を示す図である。

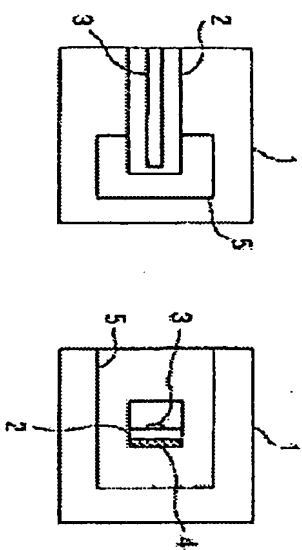
(図6) 従来の導波管/マイクロストリップ線路変換器を示す図である。

(符号の説明)

- 1 導体シヤーン
- 2 誘電体基板
- 3 マイクロストリップ導体
- 4 誘電層
- 5 支持台
- 6 空気層
- 7 接地面
- 8 接地面
- 9 接地面

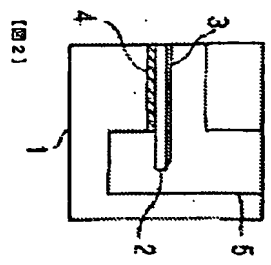
(a)

(b)

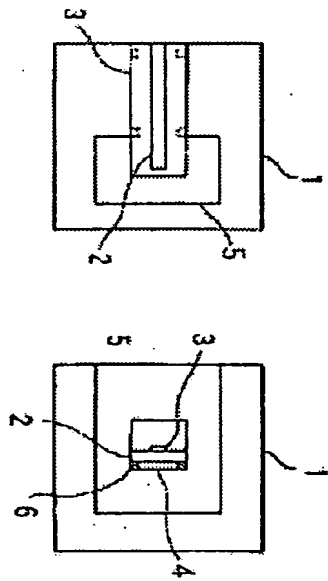


(c)

- 1: 導体シヤーン
- 2: 誘電体基板
- 3: マイクロストリップ導体
- 4: 誘電層
- 5: 支持台



(図2)



5: 支持台

(図3)

